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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,196	12/05/2003	Yoshihiro Hashimoto	02008.133001	2127

7590 01/24/2005  
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EXAMINER
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DEB, ANJAN K

ART UNIT	PAPER NUMBER
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2858

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,196	<b>Applicant(s)</b> HASHIMOTO, YOSHIHIRO	
	<b>Examiner</b> Anjan K Deb	<b>Art Unit</b> 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/05/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 2 . Claim 1-3, 5-9, 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeda (US 4,857,821).

Re claim 1, Takeda discloses power supply 1 connected to load 3, current draw unit (14) and current control unit 18 operable to control 14 the current drawn by the current draw unit 14 based on voltage received by load VA (column 3 lines 20-30)(Fig. 3).

Re claim 2, Takeda discloses current draw unit 13,14 connected parallel to load 3 (Fig. 3).

Re claim 3, Takeda discloses first current change unit 13 connected in parallel to load operable to supply current or draw current from electrical path (A)(leading or lagging operation) (column 3 lines 20-30)(Fig. 3).

Re claim 5, Takeda discloses inductance component  $X_s$  (2) between power supply 1 and current draw unit 14,17 is larger than inductance component between current draw unit and load 3 since no inductance is shown in the path between current draw unit and load 3 (Fig. 3).

Re claim 6, Takeda discloses current control unit makes current drawn ( $Q_I$ )(current being function of reactive power  $Q_I$ ) by the current drawn unit is substantially zero when load voltage is less than predetermined voltage ( $V_A < V_I$ )(column 3 lines 20-30)(Fig. 3).

Re claim 7, Takeda discloses current control unit makes current drawn ( $Q_I$ )(current being function of reactive power  $Q_I$ ) by the current drawn unit is substantially zero when load voltage is higher than predetermined voltage ( $V_A > V_I$ )(column 3 lines 20-30)(Fig. 3).

Re claims 8,9 Takeda discloses second current change unit capacitor 15 operable to supply current (reactive power) when the current drawn by the current drawn unit 14 increased and draw current when the current drawn by the current drawn unit 14 decreased (column 3 lines 58-63).

Re claim 11, Takeda discloses first coil 13 (transformer) and second coil 4 between load 3 and current draw unit 14 (Fig. 3).

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Re claims 12-15, Takeda discloses current draw unit comprising a thyristor broadly interpreted as MOS-FET as it performs the same function of an electronic switching device which is turned on by the application of voltage to a gate terminal.

3. Claims 1,16 are rejected under 35 U.S.C. 102(b) as being anticipated by Heaton (US 5,059,889).

Re claims 1,16, Heaton discloses pattern generator (see abstract) operable to generate test pattern for testing electronic device (DUT) and determination unit CR10 operable to determine whether electronic device is defective based on an output signal (column 8 lines 13-26), including power supply circuit Vdd connected to load (DUT), current draw unit (R1,R2,...Rn) and current control unit (Sw1,Sw2a,...Swna) operable to control the current drawn by the current draw unit based on voltage VSENSE received by load (column 2 lines 39-61)(Fig. 1).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda (US 4,857,821) in view of Williams (US 4,677,364).

Re claims 4,10 Takeda disclosed all of the claimed limitations as set forth above except first current change unit is a capacitor and that second change unit has larger capacity than first current change.

Williams discloses first and second current change units comprising fixed and switched capacitors, wherein second change unit has larger capacity than first current change unit for providing minimum and maximum level of current compensation (Fig. 5).

At the time of the invention it would have been obvious for one of ordinary skill in the art to modify Takeda by adding first current change unit comprising a capacitor wherein second change unit has larger capacity than first current change unit as disclosed by Williams for providing a minimum and maximum level of current compensation.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Choi (US 5,612,609) discloses power supply system comprising load 130, current draw unit 107,113, control unit 200, and first and second current change unit 104, 117 (Fig. 1).

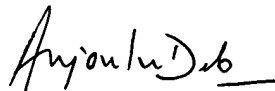
Aoyama (US 4,752,726) discloses power supply 52 supplying load 50, current draw unit 62,64, control unit 70, and current change unit 60 (Fig. 1).

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Johnson (US 6,556,034 B1) discloses highly accurate power supply for testing an electronic device (DUT) 40 comprising test pattern generator for supplying test patterns to DUT, low and high level current change units for sourcing or sinking supply current according to DUT current load demand.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lefkowitz Edwards can be reached at 571-272-2180.



**Anjan K. Deb**

Patent Examiner

Art Unit: 2858

1/15/05

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